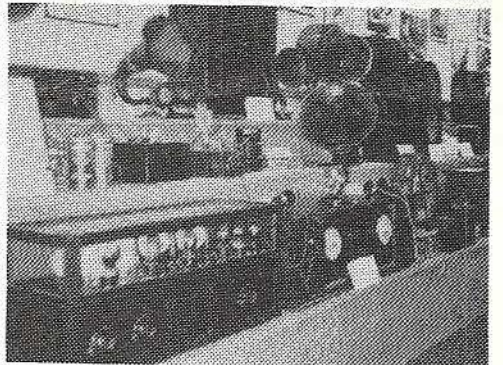
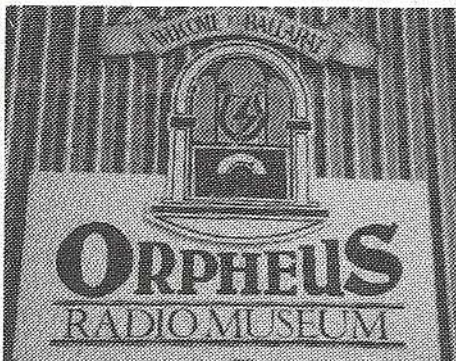
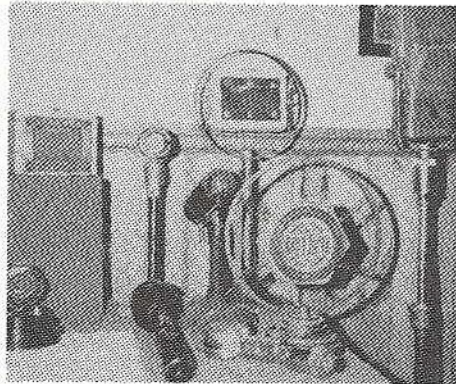
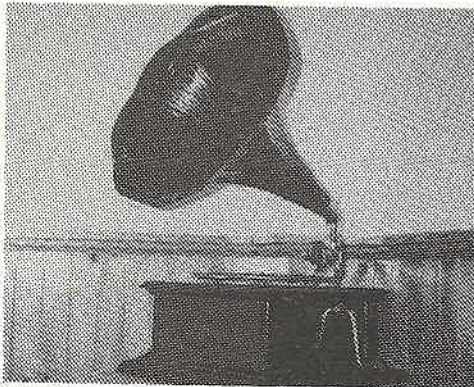


Oct 1988



B·A·R·G NEWS



© Monthly Newsletter of the
Ballarat Amateur Radio Group

88/10 2

BALLARAT AMATEUR RADIO GROUP INCORPORATED OFFICERS 1988-1989

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			HOME	BUSINESS
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Technical Officer:	DICK ANTOZIEWICZ	VK3 AEX	32 3273	31 1818
Memb. Representative:	NEAL DAVIDSON	VK3 KQQ	35 9612	

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Newsletter Editors:	BOB TERRILL	VK3 BNC	39 5317	39 1001
	HARRY HEKKEMA	VK3 KGL	35 7563	39 1011
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Awards Manager:	MAURIE BATT	VK3 XEX	42 2245	
Property Officer:	DICK ANTOZIEWICZ	VK3 AEX	32 3273	31 1818
Hamfest Convenor:	KEVIN HUGHES	VK3 WN	35 5011	
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	DICK ANTOZIEWICZ	VK3 AEX	32 3273	31 1818
	GEOFF SMITH	VK3 ADB	33 2112	
Technical Committee:	IAN ROBINSON	VK3 BTX	35 8031	
	MAURIE BATT	VK3 XEX	42 2245	
	PHIL SEDDON	VK3 AQM	31 5220	
	MURRAY FELSTEAD	VK3 AAI	41 2234	

B.A.R.G. meets on the **LAST FRIDAY** in every month except December at the Ballarat Education Centre,
Hopetoun St., Ballarat at 7.30 p.m.

Committee meetings are held at the Education Centre on the Wednesday two weeks prior to the Club meeting at 7.30 p.m.
Executive committee members are expected to attend and any club member with business for discussion is welcome.

All correspondence to: The Secretary, BARG Inc., P.O. Box 216E, Ballarat East, 3350.

Applications for Awards to: Maurie Batt, RSD, Rokewood Junction, 3351.



CNR. RING RD. & WESTERN HWY BALLARAT
(OPEN 10AM - 5 PM 7 DAYS A WEEK)

FEATURES

- GRAMOPHONES • VINTAGE RADIOS • VISITORS PARTICIPATION
- MEMORABILIA • AUDIO DISPLAYS • DEMONSTRATIONS • CRYSTAL SETS

The "Orpheus Radio Museum" is operated by Richard and Sonja Wilson.
The collection includes their private collection, the 3BA collection and other items on loan to the museum.
The museum is run with the idea of preserving the history of radio in Australia and making it accessible to the public.
If anyone has any information or items of interest to the museum, would they please contact, or write to, the "Orpheus Radio Museum" RSD B98, Ballarat 3352. Telephone (053) 34 2513.
Let the public enjoy your piece of Radio History.

MINUTES OF GENERAL MEETING HELD 30th SEPTEMBER 1988.

MEETING OPENED by President John CFH at 7.45pm with 27 members present.

APOLOGIES VK3 DMK, XEX, PSD, VU, CAZ, KIT, DS, CFF.

MINUTES of previous meeting as printed in Newsletter confirmed. PUW?PUJ.

CORRESPONDENCE IN Narracourt ARC re proposed hookup between schools.
Ken KAV enquiring whether Club would take over the operation of inwards QSL Bureau.

BUSINESS ARISING John CFH contacted NARC and expressed interest in the proposed school hookup. Further details from NARC later. After long discussion it was moved by Bob BNC seconded Kevin WN that BARG do not take over the inwards QSL Bureau.

CORRESPONDENCE OUT DOTC requestng permission to use Club call for JOTA. DOTC re address on licence being PO Box 216E and asking what action we should take as it is not possible to transmit from this address as required in regulations.

TREASURERS REPORT General a/c \$381.58. VS&L a/c \$2361.63. KGL/PUW.

QSL MANAGER Jeff reported 298 cards in and 119 Out.

EDUCATION MANAGER Ian suggested that the Club should run an instruction course in conjunction with TAFE in the new year. This met with approval and Executive will proceed with arrangements.

NEWSLETTER The Newsletter Committee were congratulated on the new format of the Newsletter also the new advertisers which will help to keep costs down. Please assist with articles to help maintain the standard and remember that your advertisements of gear wanted or for sale appear FREE.

WICEN Dick AEX represented the Club at the WICEN meeting at Mitcham and in accordance with Club policy will be reimbursed for travelling expenses. Gordon PUW reported a request from WICEN asking if the Club could make a set of 2mtr cavities for them, this request will be referred to the members with the necessary expertise.

HAMVENTION Kevin WN reported that all arrangements are now well in hand and took a list of helpers available on the day. Raffle books were distributed and further supplies can be obtained from Bob BNC.

CLUB NET. Please support the net on Thursday evenings. 3.610.8.00pm.

GENERAL BUSINESS. Secretary to order 25 copies of 1988-89 Callbooks. A quantity of gear belonging to the late David Cohen has gone missing.

MEETING CLOSED at 9.15pm.

#####

73s Jim CFB.

NEXT BARG MEETING 28th October. 7.30pm at Education Centre.

NEXT EXECUTIVE COMMITTEE Wednesday 9th November. at Education Centre.

#####

Ballarat Amateur Radio Group

88/10 4

VK3BML

HAMVENTION '88 CONVENOR
KEVIN HUGHES VK3WN
PHONE 053-355011

P.O. BOX 216E
BALLARAT EAST, VICTORIA, 3350

THE BALLARAT AMATEUR RADIO GROUP WILL AGAIN HOLD ITS ANNUAL "HAMVENTION" '88 ON SUNDAY 30TH OCTOBER 1988.

THE VENUE WILL BE AT THE SEBASTOPOL FOOTBALL CLUB ROOMS AT THE 'MARTY BUSCH' RECREATION RESERVE, 7KMS SOUTH OF BALLARAT ON THE BALLARAT TO COLAC ROAD.

THIS YEARS EVENT WILL BE SIMILIAR TO PREVIOUS SUCCESSFUL FUNCTIONS, WITH SOMETHING FOR EVERYONE. ALSO A LUCKY REGISTRATION PRIZE, VALUED AT \$50.00.

THE USUAL TRADE DISPLAY WILL AGAIN ATTRACT MANY EXHIBITORS, ALONG WITH A NUMBER OF AMATEUR EVENTS IN THE AFTERNOON, ALSO A HOME BREW COMPETITION. THE CLUB WILL ALSO HOLD A SPECIAL AUCTION OF UNWANTED GEAR SO CLEAN OUT YOUR SHACK NOW, READY FOR THE AUCTION.

THE USUAL BAR-B-QUE LUNCH WILL BE PROVIDED ALONG WITH AFTERNOON TEA AND FREE COFFEE ON TAP ALL DAY. ADMISSION FOR THE DAY IS \$8. PER PERSON, CHILDREN UNDER 16 YEARS FREE. FREE CHILDRENS'S PASSES WILL BE AVAILABLE TO LOCAL TOURIST ATRIACTIONS WHEN YOU REGISTER ON SUNDAY. MAKE IT A FAMILY DAY.

ON SATURDAY EVENING, 29TH OCTOBER, THE CLUB WILL BE HOST TO VISITORS AT AN INFORMAL COUNTER TEA AT THE BLUE BELL HOTEL, HOWITT ST. WENDOUREE. ANY VISITORS ATTENDING THE COUNTER TEA SHOULD BOOK THEIR PLACES WITH THE PERSON LISTED BELOW, AS LAST YEARS TEA WAS A SELL OUT.

THE CLUB CAN RECOMMEND MOTELS OR CARAVAN PARKS, SHOULD YOU REQUIRE OVERNIGHT ACCOMMODATION. THERE IS A MOTEL OPPOSITE THE SUNDAY VENUE, BUT BOOK EARLY AS MOTEL ACCOMMODATION IS ALWAYS WELL BOOKED.

REPEATER CHANNEL 3 AND 3.600MHZ WILL BE MONITERED DURING THE DAY.

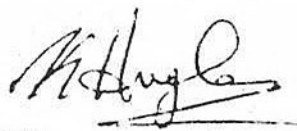
THE BALLARAT HAMVENTION IS A GREAT DAY FOR AMATEURS AND FAMILIES.

COMPETITION EVENTS TO BE HELD AFTER LUNCH WILL BE SNIFFER HUNT, 2M. FOX HUNT, 80M. FOX HUNT, 70 CM FOX HUNT.

AMATEURS WISHING TO OBTAIN FURTHER INFORMATION OR SET UP STALLS OR DISPLAYS, SHUD CONTACT KEVIN HUGHES VK3WN ON 053-355011.

73^S

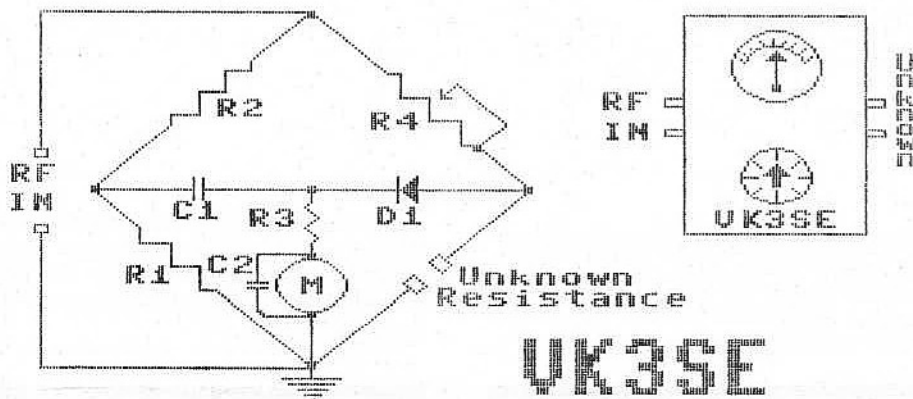
KEVIN HUGHES



ANTENNA IMPEDANCE METER

Feed RF into input terminals, calibrate with non inductive resistors and mark dial according to Ohms, connected to unknown terminals. It will read about 5 to 500 Ohms. Calibrate dial in Ohms. Once calibrated use it for antenna impedance measurements. Used with low power RF it will tell you the impedance of your antenna at given frequency.

- R1-R2 ---- 200 Ohms.
- R3 ---- 10 K.Ohms.
- R4 ---- 500 Ohm carbon pot only!
- M ---- 0-100 uA meter.
- C1-C2 ---- 0.047 uF Discs.
- D1 ---- OA85, OA95 or similar Germanium diode only.

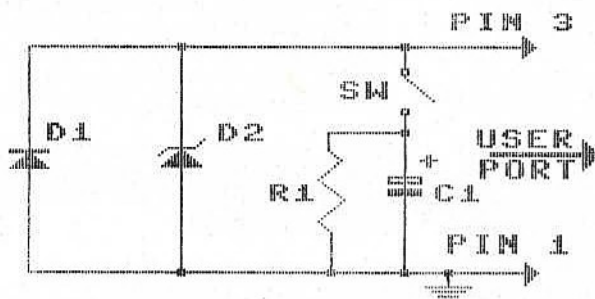


"RESET SWITCH"

For

COMMODORE 64 Computer

This is a failsafe RESET SWITCH for the Commodore 64 computer. The push button switch can be fitted in the top cover, at the left rear corner. (Back or Side) All the components can be mounted on the switch terminals. The two wires, that go to pin 1 and 3, can be soldered to the circuit board tracks with care.

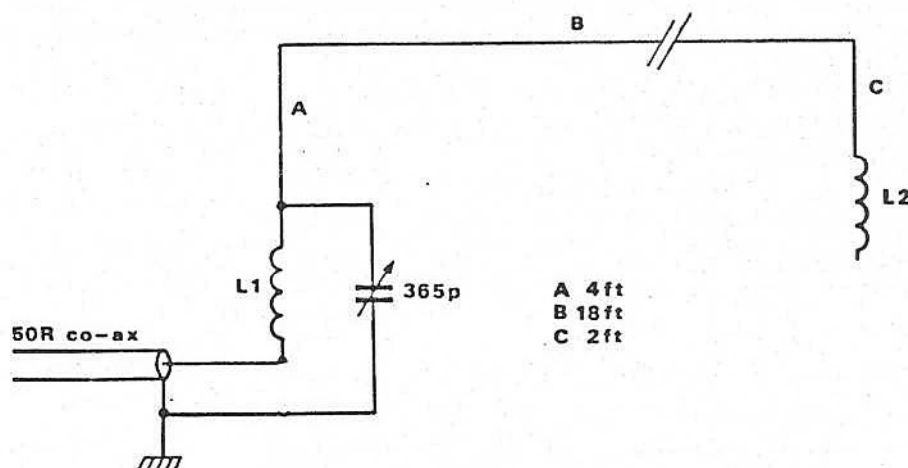


COMPONENTS

- R1 -- 1K Ω
- D1 -- 1N4148 Diode.
- D2 -- 1N4735 6.4 V Zener diode.
- SW -- Min. push button type.
- C1 -- 47uF/12V.

INDOOR ANTENNAS

Richard Marris G2BZQ with some ideas on transmitting with indoor aerials



The 'Apartment 80'

Most apartment blocks have a steel framework construction, a network of hidden electric wiring, telephone wiring, plus an assortment of water, heating and gas pipes, and of course, metal window frames.

Dreams of an 80 metre beam antenna, a half-wave dipole, or a quarter-wave vertical antenna can be forgotten. A short helical-wound vertical antenna is a possibility, but the writer, so far, has found the results disappointing. Also, of course, a satisfactory ground system is practically impossible!

So what is left? The answer seems to be the longest convenient horizontal antenna with suitable loading.

The Apartment 80 is a simple and effective indoor 80 metre antenna which will produce plenty of QSOs, and is illustrated in Figure 2. On 80 metre CW at the LF end of the band (between 3500 and 3580kHz) the writer works, from a QTH in southern England, all over Europe and all over the USSR, with a maximum estimated distance of 5,350 miles to date. Operating time is invariably restricted to an hour or so, between 0330 and 0530GMT when the band is at its noisiest. More sustained and serious operating would, no doubt, produce more DX, but real DX hunting is not the target these days.

Transmitters used with the Apartment 80 consist of one which is adjustable between 50/100 watts input and another between 10/12 watts input. Tests have indicated little difference to the results obtained. Results with the Apartment 80 will, of course, depend on height, construction and location of the apartment, as well as a good ground connection. The same applies to an outdoor antenna as far as height, location and ground connection are concerned. The current height of the antenna is about 20 feet above ground level and it runs approximately north/south.

When constructing such an antenna it has been found that the maximum straight length of wire is advisable, erected diagonally across the room which keeps it away from the walls. It should not be less than 6in below ceiling level (who knows what is hidden there in the way of wiring?).

Referring again to Figure 2, it will be seen that the antenna consists of 24 feet of wire. PVC covered flex is used, identical to that used for L2 (see below). The horizontal part (B) is 18 feet long and is suspended 7in below ceiling level with nylon fishing line, and runs diagonally across the room from opposite corners. At the far end, about 24in from the corner, loading coil L2 is suspended by 24in of wire (C). At the operating end, again about 24in from the corner, 4 feet of wire (A) drops down to the ATU.

The simple ATU consists of L1 and a 365pF variable capacitor of the airspaced type, salvaged from an old receiver. Feed to the Tx/Rx is via about 3 feet of 50 ohm coaxial cable. The ground connection is made to a convenient water pipe with about 15 feet of stout PVC insulated cable. And that is all there is to it!

Experiments have indicated that end loading, with L2, was easier to use and gave better results than centre loading, or loading at the ATU end of the antenna.

The ATU is a simple L-network assembled into a small metal box, with suitable antenna and ground connection sockets. The variable capacitor used is a 365pF good quality airspaced receiving type.

The inductance L1 consists of 14 turns of 18 gauge enamel copper wire, close-wound on a piece of 2.2in diameter tubing (plastic), obtained from a local hardware store.

The end loading coil L2 is wound onto 10½in length of ½in diameter wooden dowel. It consists of 21 feet of PVC covered flex, close-wound, giving 110 turns. The wire used had 22 strands and the overall diameter, including PVC insulation, was 2mm. The same type was also used for the antenna.

Testing, testing . . .

Testing the antenna is simple. Tune up the Tx into a dummy load. Then, on receive, adjust the ATU variable capacitor for maximum signal strength to get a preliminary setting. With the SWR meter in place between the ATU and Tx input, and with a few watts of power, adjust for minimum SWR in the usual way. An SWR of close to 1 : 1 should be obtainable.

Anyone building this antenna, but having difficulty in matching it to the Tx because they have departed from the specified dimensions/layout, inductance windings, ground connections, or erection/location of the antenna, should be able to make the necessary adjustments by a slight change (plus or minus) in the number of turns on L1. The writer wished to avoid using taps on L1, but, of course, this could be done by making L1 a few turns larger and fitting tapping points. But why make life difficult? It has been found that once L1 is right, and the

tuning capacitor has been adjusted for optimum results, there is no need to alter anything over the whole of the CW part of the 80 metre band.

Here is a great little indoor antenna. Try it for yourself. Bob, VK7bnc.

H.F. IN THE STRYZLECKI DESERT.

Recently, I took off in "Big Red", my 4 wheel drive Landcruiser, for another trip into the outback. My brother came along plus a friend who I immediately pronounced navigator for the sticky bits. We were accompanied by another 4WD vehicle.

Our first day took us to the Anabranche of the Darling river where we camped and I made my first 80m. contact back to VK3 MC/NC/DS and others on a pre-arranged sched. Sunday morning saw us topping up fuel etc. in Broken Hill and after lunch at Silverton, headed west toward the border fence. We spoke with a lady at Mundi Mundi station at about 2pm. Sunday afternoon (take note of that) then found a gate through the fence to VK5land. Navigation in earnest now began as the plan was to travel in an arc, first Northerly then swinging west to strike the eastern side of the dry salt Lake Frome via the edge of Lake Kuturu. Our landmarks on this part of the trip were dams and bores as marked on maps drawn from aerial survey. No towns, no homesteads, some tracks - mostly going other directions than that in which we wanted to travel. Tracks shown on our maps were often quite overgrown and unused but mostly we were able to pick up those we wanted by careful measuring and compass reading.

These first couple of days in South-Oz were notable for the swarms of kangaroos. (Mob does not aptly describe the numbers). The next few days it was rabbits in numbers such as I have not seen since my childhood days. However, we reached Lake Frome and travelled north where we camped at Cootabarlow Bore. Sub-artesian water coming from a 200mm pipe near boiling temperature and creating a creek and lake complete with water birds. Even a few hundred metres down the creek the water is still hot bath temperature and is extremely soft due to the high soda content.

On Wednesday morning we reached the southern end of Lake Callabonna, then sought and found the ruins of the homestead built in the 1860's then set out along the general direction of the Callabonna Creek to find Tilcha bore some 32 kms East N/East. Problem was - no track, and the map indicated 10 metre high sand hills. This became the most interesting part of the trip and at one stage we were in low range, full power, for 8 kms.

Cont.....

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Desert Trek cont..

along the dry sandy creek bed. The bed turned white so I knew the Soda from Tilcha Bore was at times reaching this area and the going was getting heavy indeed. After finding a solid sand bar on which to pullup safely, we poked a stick through the soda crust and sure enough, found that it covered some very sticky mud.

We camped on the bank and next morning took to the sandhills again and reached Tilcha Bore at 11.30am. This was Thursday. Remember the lady from last Sunday afternoon? No, she wasn't swimming at the bore - but people from 2 other 4WD's were and they were the first people or vehicles we had seen since Sunday and they just happened to be crossing the dessert in a different direction to us and be at Tilcha Bore when we arrived. We met no further travellers until Saturday morning when we were near Tibooburra.

This is the kind of article we usually write for our 4WD Club magazines but it was due to my travels in such places that prompted me to try for the amateur radio licence and it has proved to be a great asset. On this trip, one of my companions was concerned about his elderly father who was to have an operation. George (DS) got us the first report on his admission to hospital and on the Thursday night I was able to plug into the club net where George (DOK) came back with an allclear report after the operation.

A further ongoing radio interest on this trip was that 7 4WD vehicles loaded with 44 assorted kids from Kilsyth were touring South West Queensland and Expo with Graeme VK3GVM in charge. I was able to assist him make contact with other operators back in Melbourne where groups of parents were huddled in shacks listening for word of their kids in the outback. I wont bore you with the second week of our trip but it was also very enjoyable.

Thanks to those who kept our nightly sched. in spite of nasty static at times. Nice to know that if some real problem had come along, a C.Q. would set the wheels of help in motion.

Des VK3PUH.



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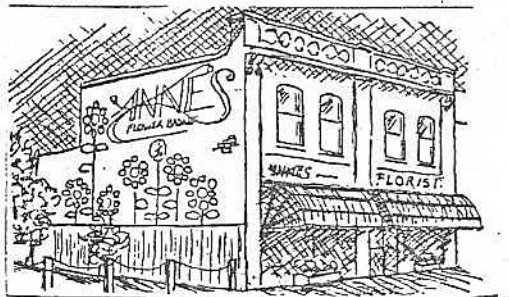
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